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- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM,

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Declarations under Rule 4.17:

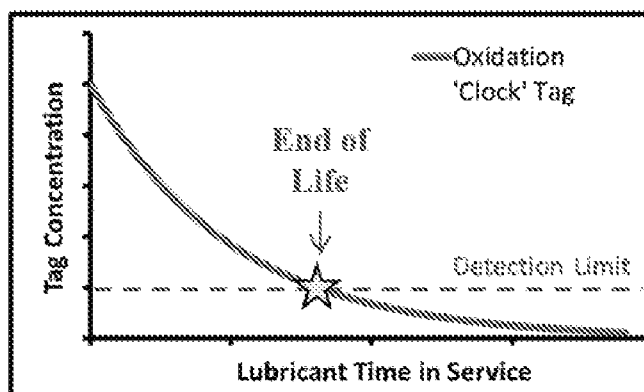
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) **Title:** METHODS FOR DETERMINING CONDITION AND QUALITY OF PETROLEUM PRODUCTS

Fig. 2



(57) **Abstract:** A method is provided for determining the condition or quality of a product. The method involves adding to the product a taggant in which the taggant exhibits degradation in response to one or more stimuli; carrying out an immunoassay specific for the taggant to determine degradation of the taggant; and determining the condition of the product based on the degradation of the taggant. A method is provided for monitoring degradation or quality of a product. The method involves adding to the product a taggant in which the taggant exhibits degradation in response to one or more stimuli; and carrying out an immunoassay specific for the taggant to determine degradation of the taggant. The method further involves identifying the condition of the product based on the degradation of the taggant. Lubricating engine oils are provided containing the taggant.